

REMARKS

The Office Action of August 31, 2009 has been carefully considered.

Objection has been raised to the claims on the basis of the terms "such as" and "and/or" and the claims now in the application do not utilize this terminology.

As to the objection to claim 33, the Examiner's attention is directed to the Preliminary Amendment filed with this application, in which examination of claims 1-30 found on the Amended Sheets was requested, and claim 30 was canceled. Hence, the claim to which objection was raised was no longer in the application.

The allowability of claims 12-21, 24-25 and 28-32 has been noted.

Claims 1-6 have been rejected under 35 USC 103(a) over Moore in view of Booth. Based on the discussion in the Office Action, this rejection is thought to extend to claims 7-9, 11, and 22-23, as well.

New claims 34-62 are now to be examined. Claim 34 includes the subject matter of claim 1 of the Amended Sheet, or original claims 1, 4 and 5.

Hence, the invention relates to a carrier for structural parts to be subjected to a heat-treatment process, comprising at least one frame and a lattice formed of intersecting strands extending therefrom, where the frame comprises limbs which preferably form a polygon, and where the frame comprises a temperature-resistant material. The strands which form the lattice are of carbon fibers or ceramic fibers and extend from the limbs.

Such a carrier has a simple construction allowing to be easily individually designed in order to accommodate parts of any desired size.

Moreover, the invention provides that the lattice is formed by a section of an endless fiber bundle extending between limbs of the frame in the form of single-layer or multilayer fiber strands or intertwined yarns of a carbon-reinforced material and/or ceramic material, the fiber bundle extending in a warp and woof-like woven structure between the limbs of the frame.

The invention is thus directed to the use of a lattice formed of an endless fiber bundle running between the limbs of the frame. This enables a simple production while the warp and woof-like woven structure provides the further advantage that the mesh size can be adapted to the intended use of the carrier so that consequently components of any desired size can be accommodated without the mesh size being too small or too large.

Due to the limbs of the carrier that run perpendicular relative to the lattice, the components to be accommodated can be oriented vertically relative to the lattice.

The state of the art references cited in the Office Action offer no suggestion of the invention. Moore relates to a carrier whose bottom and lateral surfaces consist of a metal grid (see column 2, lines 37-40). Hence, the disadvantages result as already mentioned in the application on pages 1 and 2, i.e.

- distortions during thermal cycles,
- creep of the entire structure due to the effect of temperature,
- high dead weight,
- high heat capacity,
- short life due to embrittlement,
- high cost of adjustment to extend useful life, and
- increased waste of the parts to be treated due to distortion of the holding device.

Additionally, one skilled in the art finds no motivation to replace the metal bars forming a grid with an endless fiber bundle extending between the limbs of the lattice.

Booth relates to a carbon-carbon composite material and a method of making. The carbon-carbon composite products disclosed by Booth comprise "laminate plies formed from the carbon fabric having pitch-based carbon strands of relatively high modulus of elasticity when compared to the warp direction strands" (see abstract).

The sole drawing figure shows a portion of a fabric, formed from strands 4 and strands 5. Strands 4 and 5 consist of a different number of yarns and have different properties, with strands 4 formed from high-modulus P-100 yarns and strands 5 formed from T-50 PAN yarns (column 5, lines 10-13).

Booth makes no reference is made to a carrier of the type presently claimed. Due to the different yarns Booth uses for producing the fabric 2, with the fiber strands running in one direction differing from the ones running in the other direction, the person skilled in the art sees no suggestion to use *an endless fiber bundle* in order to produce a lattice. Indeed, using an endless fiber bundle based on the teachings of Booth is not possible.

Moreover, no motivation is provided for a person skilled in the art to replace the grid provided by Moore with the carbon-carbon composite strands of Booth.

Withdrawal of this rejection is requested.

Claim 10 has been rejected under 35 USC 103(a) over Moore in view of Booth and Daringer. This rejection apparently applies to claim 26-27 as well. Moore and Booth have been discussed in detail above.

New method claim 56 requires that an endless fiber bundle is clamped between a frame including limbs and that a matrix is then inserted into the fibers of the endless fiber bundle

and that subsequently the lattice is removed from the frame.

The cited art provides no suggestion as to the use of an endless fiber bundle for producing a lattice. In particular, Moore is not able to offer any suggestion insofar as single bars made of metal are used for producing a grid (see column 2, line 38; and especially Figs. 4 and 7). Booth also fails to offer any suggestion, since this document teaches exclusively the use of carbon-carbon composite products without producing a lattice formed of an endless fiber bundle that is clamped between the limbs of a frame, followed by the insertion of a matrix into the fibers and the removal of the lattice from the frame.

Daringer discloses a flat wire basket, formed of bent flat wire belting material or blank 22. The single bent flat wires include holes 40 through which rods 26 extend so that the single bent flat wires are kept together in order to form the basket (see column 2, lines 71-72; column 3, lines 1-5, 25-32).

There is no suggestion for one skilled in the art to replace the flat wires with endless fiber bundles, to clamp the fiber bundles into a frame, to then insert a matrix, and to finally remove from the frame the lattice formed by the endless fiber bundle.

Withdrawal of this rejection is requested.

The specification has been amended to add subject matter headings.

In view of the foregoing amendments and remarks, Applicants submit that the present application is now in condition for allowance. An early allowance of the application with amended claims is earnestly solicited.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read "I. J. Schultz". The signature is fluid and cursive, with the first name "Ira" and last name "Schultz" clearly distinguishable.

Ira J. Schultz
Registration No. 28666
Attorney for Applicants
(703)837-9600, ext. 23

Dennison, Schultz & MacDonald
1727 King Street, Suite 105
Alexandria, VA 22314